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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application Number	Not Known 10/705, 563					
Filing Date	11/10/2003					
First Named Inventor	Silver et al.					
Group Art Unit	2625					
Examiner Name	D. Mariam					
Attorney Docket Number	C97-050 CON13					

		U.S. Patent Document		Date of Publication of	Pages, Columns, Lines, Where Relevant Passages or Relevant C1635/SN, Figures Appear	
Examiner Initials*	Cite No.'		Code <sup>2</sup> Name of Patentee or Applicant of Cited Document	Cited Document MM-DD-YYYY		
<b>0</b> -		3,069,654	Hough et al.	12-18-1962	382/281	
	TT	3,986,007	Ruoff, Jr.	10-12-1976	700/251	
		4,146,924	Birk et al.	03-27-1979	700(259	
		4,581,762	Lapidus et al.	04-08-1986	382/263	
	$\Pi\Pi$	4,618,989	Tsukune et al.	10-21-1986	382/203	
	П	4,707,647	Coldren et al.	11-17-1987	382/151	
	$\Pi$	4,972,359	Silver et al.	11-20-1990	708/424	
		5,245,674	Cass et al.	09-14-1993	382/200	
		5,343,390	Doi et al.	08-30-1994	382/132	
		5,351,310	Califano et al.	09-27-1994	382/199	
	$\prod$	5,515,453	Hennessey et al.	05-07-1996	382/141	
	$\Pi$	5,694,482	Maali et al.	12-02-1997	382/151	
<b>V</b>	TT	5,703,960	Soest	12-30-1997	382/141	
da	TT	5,828,769	Burns	10-27-1998	382/118	

				FOREIGN	PATENT DOCUMENTS			
Examiner Initials*	Cite No.'	Foreign Patent Document  Kind Code <sup>5</sup> Number <sup>6</sup> (il known)			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	<u> </u>
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				Application Number	Mot Known 10/205,563	
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STAT	EMENT	BY A	PPLICANT	First Named Inventor	Silver, et al.	
				Group Art Unit	2625	
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Sheet	2	of	3	Attorney Docket Number	C97-050 CON13	

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10		COGNEX CORPORATION, "Description Sobel Search," Natick, MA USA, 1998 but public before the above-referenced filing date.					
8			COGNEX CORPORATION, "Chapter 7 CONLPAS," Cognex 3000/4000/5000 Programmable Vision Engines, Vision Tools, 1996, pp. 307-340, Revision 7.4 590-0136, Natick, MA USA				
12			HU, YU HEN, "CORDIC-Based VLSI Architectures for Digital Signal Processing," IEE Signal Processing Magazine, July 1992, pp. 16-35, 1053-5888/92, USA				
42			HU, et al, "Expanding the Range of Convergence of the CORDIC Algorithm," IEEE Transactions on computers, January 1991, pp. 13-21, Vol. 40, No. 1, USA	1			
de			Ballard, D.H., "Generalizing the Hough Transform to Detect Arbitrary Shapes," Pattern Recognition, 1981, pp. 111-122, Vol. 13, No. 2, Pergaman Press Ltd., UK				
de			LIN, et al., "On-Line CORDIC Algorithms," IEEE Transactions on Computers, pp. 1038-1052, Vol. 39, No. 8, USA				
19		1	WALLACK, AARON SAMUEL, "Chapter 4 Robust Algorithms for Object Localization," Algorithms and Techniques for Manugacturing, 1995, pp. 97-148 (and Bibliography pp. 324-335) PhD thesis, Unversity of California at Berkeley, USA		V		
10			JAMES D. FOLEY, ANDRIES VAN DAM, STEVEN K. FEINER, JOHN F. HUGHES, Second Edition in C, Introduction to Computer Graphics, pp. 36-49, Addison-Wesley Publishing Company, 1994; USA				
12			LISA GOTTESFELD BROWN, A Survey of Image Registration Techniques, Department of Computer Science, Columbia University, New York, NY 10027, ACM Computing Surveys, Vol. 24, No. 4, December 1992	-			
de			GUNILLA BORGEFORS, <u>Hierarchical Chamfer Matching</u> : A Parametric Edge Matching Algorithm, IEEE Transactions on Pattern Analysis and Machine Intelligence, Vol. 10, No. 6, November 1988		/		
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Examiner Signature	del	Date Considered	8-3-05

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Sheet	3	of	(3	)	Attorney Docket Number	C97-050_CON13			

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4		DANIEL P. HUTTENLOCHER AND WILLIAM J. RUCKLIDGE, A Multi-Resolution  Technique for Comparing Images Using the Hausdorff Distance, Department of Computer Science, Cornell University, Ithaca, NY 14853,	j
\$		I.J. COX AND J.B. KRUSKAL (AT&T Bell Laboratories, Murray Hill, NJ), On the Congruence of Noisy Images to Line Segment Models, IEEE, 1988	
6		DANIEL P. HUTTENLOCHER, GREGORY A. KLANDERMAN AND WILLIAM J. RUCKLIDGE, Comparing Images Unsing the Hausdorff Distance, IEEE Transaction on Pattern Analysis and Machine Intelligence, Vo. 15, No. 9, September 1993	
de		AKINORI KAWAMURA, KOJI YURA, TATSUYA HAYAMA, YUTAKA HIDAI, TADATASHI MINAMIKAWA, AKIO TANAKA AND SHOICHI MASUDA, On-line Recognition of Freely Handwritten Japanese Characters Using Directional Features Densities, IEEE 1992	
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Examiner Signature		Date Considered 8-3-07	

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